

NPDES Permit No. IL0004421
Notice No. 13022201.bwc

Public Notice Beginning Date: **May 6, 2015**

Public Notice Ending Date: **June 5, 2015**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

Draft Reissued NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-0610

Name and Address of Permittee:

Honeywell International, Inc.
2768 North US 45 Road
P.O. Box 430
Metropolis, Illinois 62960

Name and Address of Facility:

Honeywell International, Inc. - Metropolis Works Facility
2768 North US 45 Road
P.O. Box 430
Metropolis, Illinois 62960
(Massac County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES permit to discharge into the waters of the state and has prepared a draft permit and associated fact sheet for the above named Permittee. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. The last day comments will be received will be on the Public Notice period ending date unless a commentor demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the draft permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the permit applicant. The NPDES permit and notice number(s) must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final permit is issued. For further information, please call Brian W. Cox at 217/782-0610.

The applicant is engaged in the production of fluorine based products by chemically reacting hydrofluoric acid and/or fluorine with other raw materials including uranium ore concentrates. The specific products manufactured at the facility are fluorine, uranium hexafluoride, and calcium fluoride (SIC 2819). Plant operation results in an average discharge of 3.448 MGD of treated process wastewater, uranium hexafluoride pollution control wastes, non-contact cooling water, sanitary waste water, laundry waters, miscellaneous condensate, laboratory wastewater, water softener regenerate, equipment washwater, test waters and emergency discharges from the fluorine release mitigation system, and process area stormwater from outfall 002, an average discharge of 0.0551 MGD of treated sanitary waste water from internal outfall A02, an average discharge of 0.141 MGD of treated process wastewater from internal outfall B02, an average discharge of 0.047 MGD of treated process wastewater and stormwater runoff from the uranium ore processing areas from outfall C02, and an intermittent discharge of stormwater runoff from outfalls 003 and 005.

All of the facility's cooling water originates from on-site groundwater wells.

Process wastewaters generated at the facility are treated in their on-site wastewater treatment plant (WWTP) prior to discharging to Outfall 002. Treatment operations currently consist of chemical neutralization and precipitation, filtration, ion exchange and settling. The four settling ponds associated with Honeywell's Environmental Protection Facility (EPF) WWTP, referred to as Ponds B, C, D and E are in the process of being phased out as previously described in IEPA Permit No. 2005-EB-2489. Ponds B, C, and E currently do not receive waste, but are used for storage of calcium fluoride sludge. Pond D is the only remaining pond still receiving wastewater. All four ponds will be closed in accordance with Nuclear Regulatory Commission and Bureau of Land Requirements.

All sanitary wastes are collected and treated in the facility's extended aeration activated sludge sewage treatment plant (STP) with UV disinfection, permitted under IEPA DWPC Permit No. 2014-EN-59034, prior to commingling with the other waste streams discharging to Outfall 002.

The following modifications are proposed:

The facility removed production lines for liquid fluorine, sulfur hexafluoride, iodine pentafluoride, and antimony pentafluoride in 2010. Therefore, all waste streams associated with the production of these compounds have been removed from the permit.

Outfall 004 has been removed from the permit. The permittee conducted a site inspection and determined Outfall 004 discharges to the drainage area which is tributary to Outfall 003.

Two internal outfalls, Outfalls B02 and C02, have been added to the permit. Outfall B02, has been added to the permit for the purpose of monitoring process wastewaters discharging from the EPF wastewater treatment facility. Outfall C02 has been added to the permit for the purpose of monitoring process wastewaters discharging from the #3 and #4 uranium (KOH) recovery ponds. Process wastewater monitoring results were previously reported as conditional monitoring for Outfall 002. The addition of internal Outfalls B02 and C02 is intended to simplify submittal and retrieval of DMR data for the process wastewaters and to provide a more accurate method for reporting of the fluoride and TSS concentrations to determine compliance with effluent standards.

Honeywell has supplied data indicating that they will not be able to immediately comply with the newly proposed fluoride limits at Outfall B02 and C02. Honeywell has proposed upgrades to their EPF wastewater treatment facility which will result in compliance with the proposed fluoride limits at Outfalls B02 and C02. Proposed upgrades include the addition of an equalization tank, replacement of the lime feed system, installation of an alum injection system, upgrading the pH adjustment system, installation of a second underflow line from the calcium fluoride clarifier to the calcium fluoride reactors, improving the fluoride recycle lines, installation of more metering devices and automating the water treatment system. In order to provide the necessary time to properly design, procure parts and components and construct the proposed upgrades, an 18-month schedule of compliance has been added to the permit for the new fluoride limits at Outfalls B02 and C02. It should be noted that the existing discharge from Outfall 002 is currently in compliance and will continue to comply with the applicable water quality standards and effluent standards.

The existing STP consisting of an Imhoff tank has been replaced with a new extended aeration activated sludge package STP as permitted under IEPA DWPC Permit No. 2014-EN-59034. The new STP began operating in January 2015.

The parameters and limits for Outfall A02 have been updated to reflect the ORSANCO pollution control standards for minimum level of treatment for sewage.

ORSANCO posting requirements have been added to the special conditions of the permit.

Phosphorus and Total Nitrogen monitoring have been added to Outfall 002, in an effort to gather data to be utilized in the Agency's nutrient management plan.

The requirements associated with the storm water pollution prevention plan have been changed to reflect the Agency's current recommendations and requirements.

A special condition has been added to the permit which contains requirements to monitor various metals and other parameters for the purpose of conducting reasonable potential analysis during the next permit.

Application is made for the existing discharge(s) which are located in Massac County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

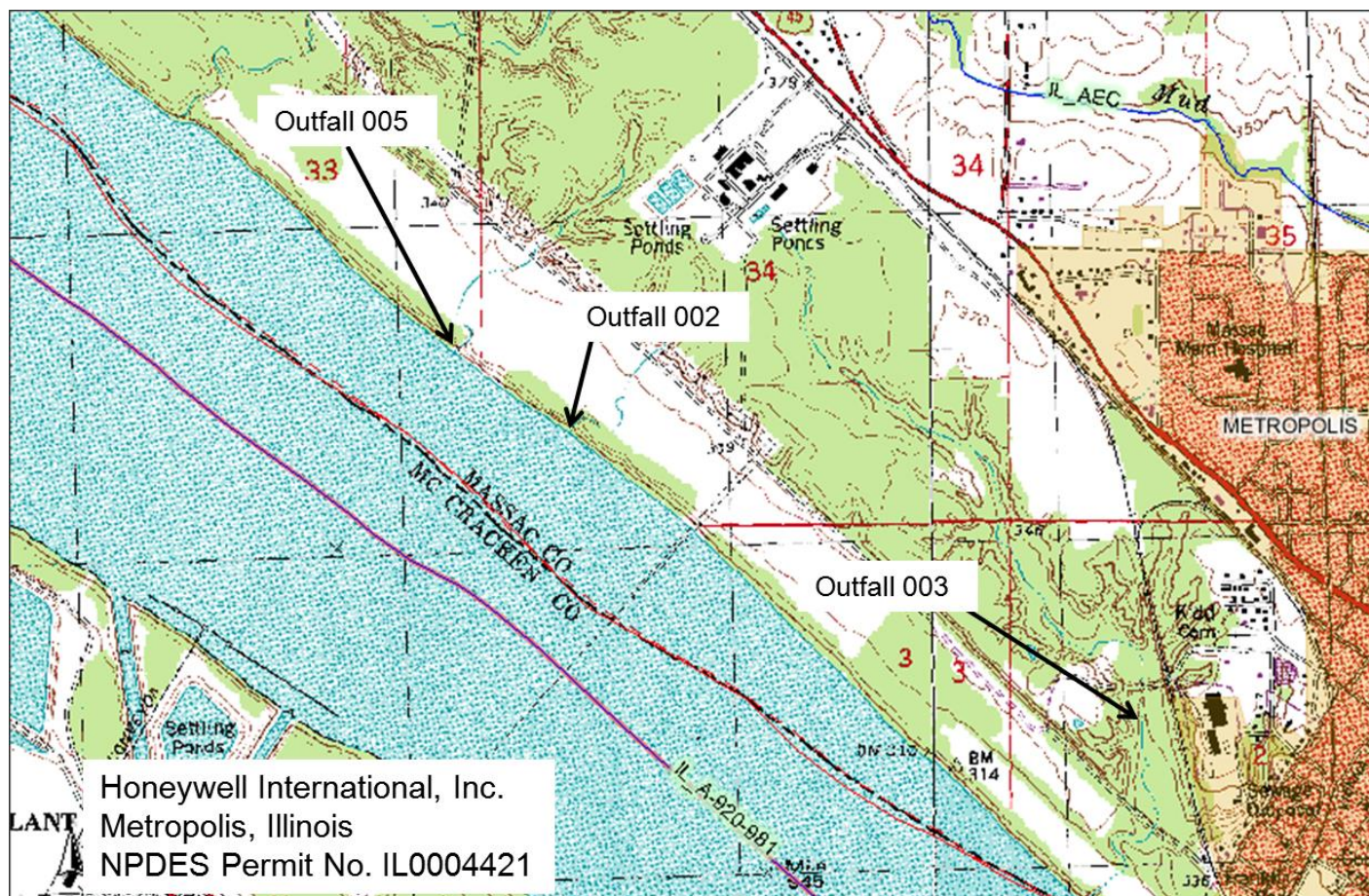
Outfall	Receiving Stream	Latitude	Longitude	Stream Classification	Integrity Rating
002	Ohio River	37° 09' 52" North	88° 45' 45" West	General Use	Not Rated
003	Ohio River	37° 09' 26" North	88° 88' 31" West	General Use	Not Rated
005	Ohio River	37° 10' 02" North	88° 45' 58" West	General Use	Not Rated

To assist you further in identifying the location of the discharge please see the attached map.

The stream segment, IL_A-920-981, receiving the discharges from outfall(s) 002, 003 and 005 is on the 2014 303(d) list of impaired waters and was not rated for biological stream significance on the 2008 Illinois Department of Natural Resources Publication – *Integrating Multiple Taxa in a Biological Stream Rating System*.

The following parameters have been identified as the pollutants causing impairment:

Designated Use	Potential Cause
Fish Consumption	Dioxin [including 2,3,7,8-TCDD], Mercury, and Polychlorinated biphenyls
Primary Contact Recreation	Fecal Coliform



The discharge(s) from the facility shall be monitored and limited at all times as follows:

Outfall: 002

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		REGULATION	CONCENTRATION LIMITS mg/L		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
Flow (MGD)				Monitor Only		
pH				Shall be within range 6–9 s.u.		35 IAC 304.125
Temperature						ORSANCO
Total Suspended Solids	227.4	454.9	40 CFR 122.44(l)	15	30	35 IAC 304.124
Fluoride	227.4	454.9	40 CFR 122.44(l)	15	30	35 IAC 304.124
Total Residual Chlorine					0.05	40 CFR 125.3 & 35 IAC 302.208
Total Phosphorus				Monitor Only		
Total Nitrogen				Monitor Only		

Outfall: A02

PARAMETER	LOAD LIMITS lbs/day* DAF (DMF)			REGULATION	CONCENTRATION LIMITS mg/L			REGULATION
	Monthly Avg.	Weekly Avg.	Daily Max		Monthly Avg.	Weekly Avg.	Daily Max	
Flow (MGD)					Monitor Only			
Total Suspended Solids	13.8 (16.4)	20.7 (24.6)		ORSANCO (5.4)(A.)(2.)	30	45		ORSANCO (5.4)(A.)(2.)
BOD ₅	13.8 (16.4)		27.6 (32.8)	35 IAC 304.120(a)	30		60	35 IAC 304.120(a)
Fecal Coliform							400 cfu/100 mL	35 IAC 304.121
<i>E. Coli</i> **								ORSANCO (5.4)(A.)(4.)(ii.)

* Load Limits based on design maximum flow shall apply only when flow exceeds the design average flow.

**During the months of April – October the geometric mean of the *E. Coli* bacteria content of effluent samples collected in a 90-day period shall not exceed 130/100 mL, and no more than 25% of the values shall exceed 240/100 mL

Outfall: B02 and C02

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		REGULATION	CONCENTRATION LIMITS mg/L		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
Flow (MGD)						
Total Suspended Solids				15	30	35 IAC 304.124
Fluoride				15*	30*	35 IAC 304.124

* A schedule of compliance is included in the Special Conditions of the permit. These limits will become effective 18 months from the effective date of the permit.

Outfall(s): 003 and 005

The permittee is required to maintain a storm water pollution prevention plan (SWPPP) which incorporates best management practices (BMPs) in order to minimize stormwater runoff and to minimize contamination of stormwater runoff.

Load Limit Calculations:

- A. Load limit calculations for Outfall A02 for the following pollutant parameters were based on an average flow of 0.0551 MGD and a maximum flow of 0.0655 MGD and using the formula of average or maximum flow (MGD) X concentration limit (mg/l) X 8.34 = the average or maximum load limit (lbs/day): BOD₅ and TSS.
- B. Load limit calculations for Outfall 002 for the following pollutant parameters were based on an average flow of 3.448 MGD and a maximum flow of 4.8137 MGD and using the formula of average or maximum flow (MGD) X concentration limit (mg/l) X 8.34 = the average or maximum load limit (lbs/day): TSS and Fluoride. The load limits appearing in the permit for Outfall 002 are being maintained from the previous permit in order to prevent backsliding as required under Title 40 CFR Part 122.44(l).

The load limits appearing in the permit will be the more stringent of the State and Federal Guidelines.

The following explain the conditions of the proposed permit:

The special conditions of the permit serve the purpose of clarifying monitoring requirements, monitoring location, DMR submission, temperature limitations, fecal coliform and *E. Coli* limitations, uranium reporting requirements, operator certification requirements, Storm Water Pollution Prevention Plan (SWPPP) requirements and provide a schedule of compliance for fluoride for Outfalls B02 and C02.

Public Notice of Draft Permit

Public Notice Number 13022201.bwc is hereby given by Illinois EPA, Division of Water Pollution Control, Permit Section, 1021 North Grand Avenue East, Post Office Box 19276, Springfield, Illinois 62794-9276 (herein Agency) that a draft National Pollutant Discharge Elimination System (NPDES) Permit Number IL0004421 has been prepared under 40 CFR 124.6(d) for Honeywell International, Inc., 2768 North US 45 Road P.O. Box 430, Metropolis, Illinois 62960 for discharge into the Ohio River from the facility, Honeywell International, Inc. - Metropolis Works Facility, 2768 North US 45 Road P.O. Box 430, Metropolis, Illinois 62960, (Massac County). The applicant is engaged in the production of fluorine, uranium hexafluoride, and calcium fluoride (SIC 2819). Plant operation results in an average discharge of 3.448 MGD of treated process wastewater, uranium hexafluoride pollution control wastes, non-contact cooling water, sanitary waste water, laundry waters, miscellaneous condensate, laboratory wastewater, water softener regenerate, equipment washwater, test waters and emergency discharges from the fluorine release mitigation system, and process area stormwater from outfall 002, an average discharge of 0.0551 MGD of treated sanitary waste water from internal outfall A02, an average discharge of 0.141 MGD of treated process wastewater from internal outfall B02, an average discharge of 0.047 MGD of treated process wastewater and stormwater runoff from the uranium ore processing areas from outfall C02, and an intermittent discharge of stormwater runoff from outfalls 003 and 005. All discharges are to the Ohio River.

The application, draft permit and other documents are available for inspection and may be copied at the Agency between 9:30 a.m. and 3:30 p.m. Monday through Friday. A Fact Sheet containing more detailed information is available at no charge. For further information, call the Public Notice Clerk at 217/782-0610.

Interested persons are invited to submit written comments on the draft permit to the Agency at the above address. The NPDES Permit and Joint Public Notice numbers must appear on each comment page. All comments received by the Agency not later than 30 days from the date of this publication shall be considered in making the final decision regarding permit issuance.

Any interested person may submit written request for a public hearing on the draft permit to the Agency at the above address. The NPDES Permit and joint public notice must appear on each comment page. All comments received by the Agency not later than 30 days from the date of this publication shall be considered in making the final decision regarding permit issuance.

If written comments and/or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing.

NPDES Permit No. IL0004421

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Permittee:

Honeywell International, Inc.
2768 North US 45 Road P.O. Box 430
Metropolis, Illinois 62960

Facility Name and Address:

Honeywell International, Inc. - Metropolis Works Facility
2768 North US 45 Road P.O. Box 430
Metropolis, Illinois 62960
(Massac County)

Discharge Number and Name:

Receiving Waters:

Outfall 002 – Treated Process Waste, Non-contact Cooling Water,
Boiler Blowdown, Sanitary Wastes and Process Area
Stormwater

Ohio River

Outfall A02 - Treated Sanitary Wastewater

Ohio River via Outfall 002

Outfall B02 - Treated Process Wastewater from EPF WWTP

Ohio River via Outfall 002

Outfall C02 - Treated Process Wastewater from #3 and #4 Uranium
(KOH) Ponds.

Ohio River via Outfall 002

Ohio River

Outfall 003 - Stormwater

Ohio River

Outfall 005 - Stormwater

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:BWC:13022201.bwc

NPDES Permit No. IL0004421

Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): 002 – Treated Process Waste, Non-contact Cooling Water, Boiler Blowdown, Sanitary Wastes and Process Area Stormwater (DAF = 3.6905 MGD; 5.0562 MGD)

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/L		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	See Special Condition 1				Daily	Continuous
pH	See Special Condition 2				1/Week	Grab
Temperature	See Special Condition 3				1/Week	Single Reading
Total Suspended Solids	227.4	454.9	15	30	1/Week	24-Hr Composite
Fluoride	227.4	454.9	15	30	1/Week	24-Hr Composite
Total Residual Chlorine*				0.05	1/Week	Grab
Total Phosphorus				Monitor Only	Semi-Annual**	Composite
Total Nitrogen				Monitor Only	Semi-Annual**	Composite

Additional monitoring requirements for Outfall 002 are provided in Special Condition 13 and uranium reporting requirements are provided in Special Condition 19.

*See Special Condition 11.

**See Special Condition 12.

Outfall(s): A02 – Sewage Treatment Facility
(DAF = 0.0551 MGD; DMF = 0.0655 MGD)

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)			CONCENTRATION LIMITS mg/L			SAMPLE FREQUENCY	SAMPLE TYPE
	Monthly Avg.	Weekly Avg.	Daily Max	Monthly Avg.	Weekly Avg.	Daily Max		
Flow (MGD)	See Special Condition 1						1/Week	Total
Total Suspended Solids	13.8 (16.4)	20.7 (24.6)		30	45		1/Week	Composite
BOD ₅	13.8 (16.4)		27.6 (32.8)	30		60	1/Week	Composite
Fecal Coliform	See Special Condition 21					400 cfu/ 100 mL	1/Week	Composite
<i>E. Coli</i>								
April – October*							1/Week	Composite

*See Special Condition 22 for *E. Coli* limits.

NPDES Permit No. IL0004421

Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): B02 – Treated Process Wastewater from EPF (DAF = 0.141 MGD; DMF = 0.468 MGD)
 C02 – Treated Process Wastewater from #3 and #4 Uranium (KOH) Ponds (DAF = Intermittent)

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/L		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	See Special Condition 1					
Total Suspended Solids			15	30	1/Week	Grab
Fluoride			15*	30*	1/Week	Grab

*The fluoride limits will become effective 18 months from the effective date of this permit. See Special Condition 26 for a schedule of compliance.

Outfall(s): 003 and 005 – Stormwater Runoff*
 (DAF = Intermittent)

*See Special Condition 25 for Storm Water Pollution Prevention Plan (SWPPP) requirements.

Special Conditions

SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day (MGD) and reported as a monthly average and a daily maximum on the Discharge Monitoring Report.

SPECIAL CONDITION 2. The pH shall be in the range 6.0 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 3. This facility meets the allowed mixing criteria for thermal discharges pursuant to 35 IAC 302.102. No reasonable potential exists for the discharge to exceed thermal water quality standards. This determination is based on a design average flow of 3.6905 MGD and a temperature range 32 - 88 degrees Fahrenheit. The permittee shall monitor the flow and temperature of the discharge prior to entry into the receiving water body. Monitoring results shall be reported on the Discharge Monitoring Report. This permit may be modified to include formal temperature limitations should the results of the monitoring show that there is reasonable potential to exceed a thermal water quality standard. Modification of this permit shall follow public notice and opportunity for comment.

There shall be no abnormal temperature changes that may adversely affect aquatic life unless caused by natural conditions. The normal daily and seasonal temperature fluctuations which existed before the addition of heat due to other than natural causes shall be maintained.

The monthly maximum value shall be reported on the DMR form.

SPECIAL CONDITION 4. This permit authorizes the use of water treatment additives that were previously approved and those that were requested as part of the permit application. The use of any new additives, or change in those previously approved by the Agency, or if the permittee increases the feed rate or quantity of the additives used beyond what has been approved by the Agency, the permittee shall request a modification of this permit in accordance with the Standard Conditions – Attachment H

SPECIAL CONDITION 5. If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

SPECIAL CONDITION 6. Samples taken in compliance with the effluent monitoring requirements for Outfalls A02 shall be taken after the Sewage Treatment Plant but prior to mixture with any other waste streams. Samples taken in compliance with the effluent monitoring requirements for Outfall B02 shall be taken after the EPF WWTP, but prior to mixing with any other waste streams. Samples taken in compliance with the effluent monitoring requirements for Outfall C02 shall be taken after treatment in the Uranium (KOH) Ponds #3 and #4, but prior to mixture with any other waste streams.

SPECIAL CONDITION 7. Samples taken in compliance with the effluent monitoring requirements for Outfalls 002, 003, and 005 shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 8. The use or operation of this facility shall be by or under the supervision of a Certified Class K operator.

SPECIAL CONDITION 9. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/net-dmr/index.html>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 15th day of the following month, unless otherwise specified by the permitting authority.

Special Conditions

Permittees not using NetDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 10. Laundry wastewaters originating from the "powerhouse" and "administration building" and any other source(s) must be discharged to a sanitary sewer tributary to the sanitary wastewater treatment plant and/or receive treatment acceptable to this Agency prior to mixing with non-contact cooling water or other dilutional wastes.

SPECIAL CONDITION 11. All samples for Total Residual Chlorine shall be analyzed by an applicable method contained in 40 CFR 136, equivalent in accuracy to low-level amperometric titration. Any analytical variability of the method used shall be considered when determining the accuracy and precision of the results obtained.

For the purposes of this permit, TRC means those substances which include combined and uncombined forms of both chlorine and bromine and which are expressed, by convention, as an equivalent concentration of molecular chlorine.

TRC monitoring is only required during periods in which chlorination is occurring.

SPECIAL CONDITION 12. Results of the semi-annual sampling shall be submitted with the June and December DMR's each year.

SPECIAL CONDITION 13. The Permittee shall conduct quarterly monitoring of the Outfall 002 effluent and report concentrations (in mg/l) of the following listed parameters. Monitoring shall begin three (3) months from the effective date of this permit. The sample shall be a 24-hour effluent composite except as otherwise specifically provided below and the results shall be submitted on Discharge Monitoring Report Forms to IEPA with the March, June, September, and December DMRs each year, unless otherwise specified by the IEPA. The parameters to be sampled and the minimum reporting limits to be attained are as follows:

<u>STORET CODE</u>	<u>PARAMETER</u>	<u>Minimum reporting limit</u>
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01027	Cadmium	0.001 mg/L
01032	Chromium (hexavalent) (grab)	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00718	Cyanide (weak acid dissociable) (grab)	5.0 ug/L
00720	Cyanide (total) (grab not to exceed 24 hours)	5.0 ug/L
00951	Fluoride	0.1 mg/L
01045	Iron (total)	0.5 mg/L
01046	Iron (Dissolved)	0.5 mg/L
01051	Lead	0.05 mg/L
01055	Manganese	0.5 mg/L
71900	Mercury (grab)**	1.0 ng/L *
01067	Nickel	0.005 mg/L
00556	Oil (hexane soluble or equivalent) (Grab Sample only)	5.0 mg/L
32730	Phenols (grab)	0.005 mg/L
01147	Selenium	0.005 mg/L
01077	Silver (total)	0.003 mg/L
01092	Zinc	0.025 mg/L

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined, including all oxidation states.

*1.0 ng/L = 1 part per trillion.

**Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E.

NPDES Permit No. IL0004421

Special Conditions

SPECIAL CONDITION 14. Pursuant to 40 CFR 415.402, there shall be no discharge of process wastewater generated from the production of fluorine by the liquid hydrofluoric acid electrolysis process. The definition of process wastewater found at 40 CFR 415.401(b) is hereby incorporated by reference into this permit.

SPECIAL CONDITION 15. The Permittee shall post notice pursuant to the requirements of the Ohio River Valley Water Sanitation Commission (ORSANCO) Pollution Control Standards, Section V., Chapter 5.1(B). As soon as practical, but in no case longer than twelve (12) months from the effective date of this Permit, the Permittee shall comply with these requirements as follows:

- a. A marker shall be posted on the stream bank at each outfall discharging directly to the Ohio River
- b. The marker shall consist at a minimum of the facility name for this Permit, the permit number, and the outfall number. The information shall be printed in letters not less than two (2) inches in height.
- c. The marker shall be a minimum of two (2) feet by two (2) feet and shall be a minimum of three (3) feet off the ground.

Questions regarding this Special Condition should be directed to:

ORSANCO
5735 Kellogg Avenue
Cincinnati, Ohio 45228-1112

Phone: 513/231-7719
FAX: 513/231-7761

Within fourteen (14) days of posting such sign, the Permittee shall notify the IEPA and ORSANCO in writing at the following addresses:

Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section, Mail Code #19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

ORSANCO
ATTN: Permits
5735 Kellogg Avenue
Cincinnati, Ohio 45228-1112

SPECIAL CONDITION 16. The permittee shall notify Ohio River Valley Water Sanitation Commission of all upsets and bypasses within two hours of their discovery.

SPECIAL CONDITION 17. No effluent shall contain settleable solids, floating debris, visible oil, grease, scum or sludge solids. Color, odor and turbidity must be reduced to below obvious levels.

SPECIAL CONDITION 18. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302 or in the most recent revision to the *Ohio River Valley Water Sanitation Commission Water Quality Standards for Discharges to the Ohio River*.

SPECIAL CONDITION 19. Outfall 002 Uranium Monitoring – The results of routine uranium monitoring conducted for the NRC on Outfall 002 shall be reported on the Discharge Monitoring Reports. The daily maximum and minimum concentrations which occurred during the month, the monthly average concentration and the average load or quantity in pounds per month shall be reported.

SPECIAL CONDITION 20. The permittee shall request for modification of this permit should the permittee decide to discontinue the use of low-arsenic hydrofluoric acid in accordance with Standard Conditions – Attachment H.

SPECIAL CONDITION 21. The daily maximum fecal coliform count shall not exceed 400 per 100 ml.

SPECIAL CONDITION 22. During the months of April – October the geometric mean of the *E. Coli* bacteria content of effluent samples collected in a 90-day period shall not exceed 130/100 mL, and no more than 25% of the values shall exceed 240/100 mL

SPECIAL CONDITION 23. For the purpose of this permit, the discharge from Outfall 002 is limited to non-contact cooling water, sanitary wastewater, laundry waters, condensate, water softener regenerate, laboratory wastes, process wastewaters excluding those described in Special Condition 14, Uranium Hexafluoride pollution control wastes, emergency discharges and test waters generated from the fluorine release mitigation system, equipment washwater, and process area stormwater free from process and other wastewater discharges. In the event the permittee shall require the use of water treatment additives other than those previously approved by this Agency, or if the permittee increases the feed rate or quantity of the additives used beyond what has previously been approved by this

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Agency, the permittee shall request a modification of this permit in accordance with the Standard Conditions – Attachment H.

SPECIAL CONDITION 24. Reasonable efforts shall be made to direct all emergency discharges from the fluorine release mitigation system to the WWTP for treatment of fluoride and pH prior to discharge. All emergency discharges from the fluorine release mitigation system that bypass treatment shall be sampled for fluoride and pH prior to discharge.

SPECIAL CONDITION 25.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

A. A storm water pollution prevention plan shall be maintained by the permittee for the storm water associated with industrial activity at this facility. The plan shall identify potential sources of pollution which may be expected to affect the quality of storm water discharges associated with the industrial activity at the facility. In addition, the plan shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. The permittee shall modify the plan if substantive changes are made or occur affecting compliance with this condition.

1. Waters not classified as impaired pursuant to Section 303(d) of the Clean Water Act.

Unless otherwise specified by federal regulation, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event.

2. Waters classified as impaired pursuant to Section 303(d) of the Clean Water Act

For any site which discharges directly to an impaired water identified in the Agency's 303(d) listing, and if any parameter in the subject discharge has been identified as the cause of impairment, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event. If required by federal regulations, the storm water pollution prevention plan shall adhere to a more restrictive design criteria.

B. The operator or owner of the facility shall make a copy of the plan available to the Agency at any reasonable time upon request.

Facilities which discharge to a municipal separate storm sewer system shall also make a copy available to the operator of the municipal system at any reasonable time upon request.

C. The permittee may be notified by the Agency at any time that the plan does not meet the requirements of this condition. After such notification, the permittee shall make changes to the plan and shall submit a written certification that the requested changes have been made. Unless otherwise provided, the permittee shall have 30 days after such notification to make the changes.

D. The discharger shall amend the plan whenever there is a change in construction, operation, or maintenance which may affect the discharge of significant quantities of pollutants to the waters of the State or if a facility inspection required by paragraph H of this condition indicates that an amendment is needed. The plan should also be amended if the discharger is in violation of any conditions of this permit, or has not achieved the general objective of controlling pollutants in storm water discharges. Amendments to the plan shall be made within 30 days of any proposed construction or operational changes at the facility, and shall be provided to the Agency for review upon request.

E. The plan shall provide a description of potential sources which may be expected to add significant quantities of pollutants to storm water discharges, or which may result in non-storm water discharges from storm water outfalls at the facility. The plan shall include, at a minimum, the following items:

1. A topographic map extending one-quarter mile beyond the property boundaries of the facility, showing: the facility, surface water bodies, wells (including injection wells), seepage pits, infiltration ponds, and the discharge points where the facility's storm water discharges to a municipal storm drain system or other water body. The requirements of this paragraph may be included on the site map if appropriate. Any map or portion of map may be withheld for security reasons.
2. A site map showing:
 - i. The storm water conveyance and discharge structures;
 - ii. An outline of the storm water drainage areas for each storm water discharge point;
 - iii. Paved areas and buildings;

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- iv. Areas used for outdoor manufacturing, storage, or disposal of significant materials, including activities that generate significant quantities of dust or particulates.
 - v. Location of existing storm water structural control measures (dikes, coverings, detention facilities, etc.);
 - vi. Surface water locations and/or municipal storm drain locations
 - vii. Areas of existing and potential soil erosion;
 - viii. Vehicle service areas;
 - ix. Material loading, unloading, and access areas.
 - x. Areas under items iv and ix above may be withheld from the site for security reasons.
3. A narrative description of the following:
- i. The nature of the industrial activities conducted at the site, including a description of significant materials that are treated, stored or disposed of in a manner to allow exposure to storm water;
 - ii. Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with storm water discharges;
 - iii. Existing structural and non-structural control measures to reduce pollutants in storm water discharges;
 - iv. Industrial storm water discharge treatment facilities;
 - v. Methods of onsite storage and disposal of significant materials.
4. A list of the types of pollutants that have a reasonable potential to be present in storm water discharges in significant quantities. Also provide a list of any pollutant that is listed as impaired in the most recent 303(d) report.
5. An estimate of the size of the facility in acres or square feet, and the percent of the facility that has impervious areas such as pavement or buildings.
6. A summary of existing sampling data describing pollutants in storm water discharges.
- F. The plan shall describe the storm water management controls which will be implemented by the facility. The appropriate controls shall reflect identified existing and potential sources of pollutants at the facility. The description of the storm water management controls shall include:
1. Storm Water Pollution Prevention Personnel - Identification by job titles of the individuals who are responsible for developing, implementing, and revising the plan.
 2. Preventive Maintenance - Procedures for inspection and maintenance of storm water conveyance system devices such as oil/water separators, catch basins, etc., and inspection and testing of plant equipment and systems that could fail and result in discharges of pollutants to storm water.
 3. Good Housekeeping - Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm water conveyance system.
 4. Spill Prevention and Response - Identification of areas where significant materials can spill into or otherwise enter the storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, spill cleanup equipment and procedures should be identified, as appropriate. Internal notification procedures for spills of significant materials should be established.
 5. Storm Water Management Practices - Storm water management practices are practices other than those which control the source of pollutants. They include measures such as installing oil and grit separators, diverting storm water into retention basins, etc. Based on assessment of the potential of various sources to contribute pollutants, measures to remove pollutants

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from storm water discharge shall be implemented. In developing the plan, the following management practices shall be considered:

- i. Containment - Storage within berms or other secondary containment devices to prevent leaks and spills from entering storm water runoff. To the maximum extent practicable storm water discharged from any area where material handling equipment or activities, raw material, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water should not enter vegetated areas or surface waters or infiltrate into the soil unless adequate treatment is provided.
 - ii. Oil & Grease Separation - Oil/water separators, booms, skimmers or other methods to minimize oil contaminated storm water discharges.
 - iii. Debris & Sediment Control - Screens, booms, sediment ponds or other methods to reduce debris and sediment in storm water discharges.
 - iv. Waste Chemical Disposal - Waste chemicals such as antifreeze, degreasers and used oils shall be recycled or disposed of in an approved manner and in a way which prevents them from entering storm water discharges.
 - v. Storm Water Diversion - Storm water diversion away from materials manufacturing, storage and other areas of potential storm water contamination. Minimize the quantity of storm water entering areas where material handling equipment of activities, raw material, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water using green infrastructure techniques where practicable in the areas outside the exposure area, and otherwise divert storm water away from exposure area.
 - vi. Covered Storage or Manufacturing Areas - Covered fueling operations, materials manufacturing and storage areas to prevent contact with storm water.
 - vii. Storm Water Reduction - Install vegetation on roofs of buildings within adjacent to the exposure area to detain and evapotranspire runoff where precipitation falling on the roof is not exposed to contaminants, to minimize storm water runoff; capture storm water in devices that minimize the amount of storm water runoff and use this water as appropriate based on quality.
6. Sediment and Erosion Prevention - The plan shall identify areas which due to topography, activities, or other factors, have a high potential for significant soil erosion. The plan shall describe measures to limit erosion.
 7. Employee Training - Employee training programs shall inform personnel at all levels of responsibility of the components and goals of the storm water pollution control plan. Training should address topics such as spill response, good housekeeping and material management practices. The plan shall identify periodic dates for such training.
 8. Inspection Procedures - Qualified plant personnel shall be identified to inspect designated equipment and plant areas. A tracking or follow-up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded.
- G. Non-Storm Water Discharge - The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharge. The certification shall include a description of any test for the presence of non-storm water discharges, the methods used, the dates of the testing, and any onsite drainage points that were observed during the testing. Any facility that is unable to provide this certification must describe the procedure of any test conducted for the presence of non-storm water discharges, the test results, potential sources of non-storm water discharges to the storm sewer, and why adequate tests for such storm sewers were not feasible.
- H. Quarterly Visual Observation of Discharges - The requirements and procedures for quarterly visual observations are applicable to all outfalls covered by this condition.
1. You must perform and document a quarterly visual observation of a storm water discharge associated with industrial activity from each outfall. The visual observation must be made during daylight hours. If no storm event resulted in runoff during daylight hours from the facility during a monitoring quarter, you are excused from the visual observations requirement for that quarter, provided you document in your records that no runoff occurred. You must sign and certify the document.
 2. Your visual observation must be made on samples collected as soon as practical, but not to exceed 1 hour or when the runoff or snow melt begins discharging from your facility. All samples must be collected from a storm event discharge that is greater than 0.1 inch in magnitude and that occurs at least 72 hours from the previously measureable (greater than 0.1 inch rainfall) storm

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event. The observation must document: color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. If visual observations indicate any unnatural color, odor, turbidity, floatable material, oil sheen or other indicators of storm water pollution, the permittee shall obtain a sample and monitor for the parameter or the list of pollutants in Part E.4.

3. You must maintain your visual observation reports onsite with the SWPPP. The report must include the observation date and time, inspection personnel, nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.
4. You may exercise a waiver of the visual observation requirement at a facility that is inactive or unstaffed, as long as there are no industrial materials or activities exposed to storm water. If you exercise this waiver, you must maintain a certification with your SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to storm water.
5. Representative Outfalls - If your facility has two or more outfalls that you believe discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and storm water management practices occurring within the drainage areas of the outfalls, you may conduct visual observations of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s).
6. The visual observation documentation shall be made available to the Agency and general public upon written request.
- I. The permittee shall conduct an annual facility inspection to verify that all elements of the plan, including the site map, potential pollutant sources, and structural and non-structural controls to reduce pollutants in industrial storm water discharges are accurate. Observations that require a response and the appropriate response to the observation shall be retained as part of the plan. Records documenting significant observations made during the site inspection shall be submitted to the Agency in accordance with the reporting requirements of this permit.
- J. This plan should briefly describe the appropriate elements of other program requirements, including Spill Prevention Control and Countermeasures (SPCC) plans required under Section 311 of the CWA and the regulations promulgated there under, and Best Management Programs under 40 CFR 125.100.
- K. The plan is considered a report that shall be available to the public at any reasonable time upon request.
- L. The plan shall include the signature and title of the person responsible for preparation of the plan and include the date of initial preparation and each amendment thereto.
- M. Facilities which discharge storm water associated with industrial activity to municipal separate storm sewers may also be subject to additional requirement imposed by the operator of the municipal system

Construction Authorization

Authorization is hereby granted to construct treatment works and related equipment that may be required by the Storm Water Pollution Prevention Plan developed pursuant to this permit.

This Authorization is issued subject to the following condition(s).

- N. If any statement or representation is found to be incorrect, this authorization may be revoked and the permittee there upon waives all rights there under.
- O. The issuance of this authorization (a) does not release the permittee from any liability for damage to persons or property caused by or resulting from the installation, maintenance or operation of the proposed facilities; (b) does not take into consideration the structural stability of any units or part of this project; and (c) does not release the permittee from compliance with other applicable statutes of the State of Illinois, or other applicable local law, regulations or ordinances.
- P. Plans and specifications of all treatment equipment being included as part of the stormwater management practice shall be included in the SWPPP.
- Q. Construction activities which result from treatment equipment installation, including clearing, grading and excavation activities which result in the disturbance of one acre or more of land area, are not covered by this authorization. The permittee shall contact the IEPA regarding the required permit(s).

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- R. The facility shall submit an electronic copy of the annual inspection report to the Illinois Environmental Protection Agency. The report shall include results of the annual facility inspection which is required by Part I of this condition. The report shall also include documentation of any event (spill, treatment unit malfunction, etc.) which would require an inspection, results of the inspection, and any subsequent corrective maintenance activity. The report shall be completed and signed by the authorized facility employee(s) who conducted the inspection(s). The annual inspection report is considered a public document that shall be available at any reasonable time upon request.
- S. The first report shall contain information gathered during the one year time period beginning with the effective date of coverage under this permit and shall be submitted no later than 60 days after this one year period has expired. Each subsequent report shall contain the previous year's information and shall be submitted no later than one year after the previous year's report was due.
- T. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the annual report.
- U. The permittee shall retain the annual inspection report on file at least 3 years. This period may be extended by request of the Illinois Environmental Protection Agency at any time.

Annual inspection reports shall be mailed to the following address:

Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section
Annual Inspection Report
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

- V. The permittee shall notify any regulated small municipal separate storm sewer owner (MS4 Community) that they maintain coverage under an individual NPDES permit. The permittee shall submit any SWPPP or any annual inspection to the MS4 community upon request by the MS4 community.

SPECIAL CONDITION 26.Schedule of Compliance

The Permittee shall achieve compliance with the fluoride limits of 15 mg/L (30-day average) and 30 mg/L (daily maximum) for discharge number(s) B02 and C02, as soon as possible but no later than eighteen (18) months from the effective date of this Permit. Fluoride shall be monitored at Outfalls B02 and C02 on a weekly basis. Reporting shall be submitted on the DMR's on a monthly basis.

In order for the Permittee to achieve compliance with the fluoride limits of 15 mg/L (30-day average) and 30 mg/L (daily maximum) for discharge number(s) B02 and C02, it will be necessary to upgrade the EPF treatment facilities in accordance with the implementation schedule provide in Honeywell's letter dated April 8, 2015. Each of the following items shall be completed as soon as possible but no later than the dates described in the following schedule:

1.	Submit plans, specifications, and any necessary permit applications	3 months from the effective date of this Permit
2.	Commence Construction for alum process upgrades, pH stabilization upgrades, U-844 Fluoride Recycle Upgrades, and Solids Control Upgrades.	6 months from the effective date of this Permit
3.	Commence construction of influent equalization basin.	10 months from the effective date of this Permit
4.	Commence construction of lime feed stabilization upgrades	14 months from the effective date of this Permit
5.	Complete construction	17 months from the effective date of this Permit
6.	Obtain operational level	18 months from the effective date of this Permit

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Compliance dates set out in this Permit may be superseded or supplemented by compliance dates in judicial orders or Pollution Control Board orders. The IEPA may initiate a modification of the compliance schedule set out in this Permit at any time, to include other dates which are necessary to carry out the provisions of the Illinois Environmental Protection Act, the Federal Clean Water Act or regulations promulgated under those Acts. If necessary Public Notice of such modification and opportunity for public hearing shall be provided.

The Permittee shall operate the facilities in a manner to ensure continuous compliance with the fluoride limit, and not to the extent that will result in violations of other permitted effluent characteristics, or water quality standards.

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The Permittee shall submit a report no later than fourteen (14) days following the completion dates indicated for each numbered item in the compliance schedule, indicating, a) the date the item was completed, or b) that the item was not complete, the reasons for non-completion and the anticipated completion date.